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UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 5
77 WEST JACKSON BOULEVARD
CHICAGO, IL 60604-3590

Via Facsimile

REPLY TO THE ATTENTION OF:

HSRM-6J

September 29, 1994

Mr. Doug Plunkett
Village Manager
Village of Granville
P.O Box 514
Granville, Ohio 43023

RE: Granville Solvents Superfund Site, OH

Dear Mr. Plunkett:

This letter is in response to various questions raised at the September 14, 1994 public meeting in Granville OH, regarding the Granville Solvents Superfund Site. Enclosure 1 to this letter lists the questions raised at the meeting and provides a response to those questions.

I trust this letter provides an adequate response to the issues raised at the public meeting. Please contact me at (312) 353-9228 if you have any other questions or need any additional information.

Sincerely,

Edward J. Hanlon

Enclosure

CC: Granville Solvents Mailing List and Meeting Attendees

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Response to Comments: Granville Solvents Site
Public Meeting, September 14, 1994

The following is a response to comments from the Granville Solvents public meeting on September 14, 1994 at the Village of Granville's Village Hall in Granville Ohio. The comments are first listed in **bold print** with a response immediately following; related comments are grouped together.

1) How is the quality of the drinking water in the Village of Granville? Any contamination in it from the site? Is the contamination flowing towards the Village's public water supply wells? Is there really a problem with this site, since no contamination has reached the wellfield yet? Is there a present risk to people drinking the water? What impacts does the contamination have to the east of the site? How will the Agencies know if contamination is spreading to areas other than the Village's wellfield?

No contamination from the site has been found in the Village's drinking water, although low levels of acetone contamination have been detected in the vicinity of PW#1 which is not currently operating. Public water systems of the size of Granville's are required to monitor and test for various contaminants including most of the volatile organic contaminants found in the water beneath the Granville Solvents site. This testing is done every three months. None of these monitoring samples have ever found any contamination associated with the Granville Solvents site. Further, to ensure protectiveness, a private contractor independently tested the Village's drinking water in the spring of 1994, and also found no contamination associated with the Granville Solvents site. Therefore, the Village's drinking water does not yet appear to have been impacted by the Granville Solvents site.

However, the contamination from the site is shown to be moving in the ground-water towards the Village's drinking water supply wells, although low levels of acetone contamination have been detected in the vicinity of PW#1 which is not currently operating. As a precaution, the Village Water Department shut down the Village pumping well PW#1 which is closest to the contaminant plume. To also help assure the Village's wellfield is protected, a ground-water pump and treat system to prevent the further spread of contamination from the site should be installed and operational by December 20, 1994, and the Village's drinking water supply will continue to be monitored to assure protectiveness.

As discussed at the public meeting, separate investigations will be conducted over the next several months and years to determine the full nature, extent and sources of contamination within and to the ground-water. If these investigations find other sources of contamination than those at the site which are expected to have caused the ground-water contamination, these additional source areas will be cleaned up if necessary to assure that the surface soils are protective of human health and the environment, as well as cleaned up if necessary to protect the ground-water from further unacceptable releases of contamination.

These investigations may also find that the contamination plume may have spread further than previously known, possibly to properties not previously known to have

encompassed the plume. As noted at the meeting, the United States Environmental Protection Agency (USEPA) and the Ohio EPA (OEPA) agree that it is unclear whether the contaminated ground-water plume has spread to certain areas to the north, east and south of the site; these potential data gaps should be resolved after the additional investigations are completed. The contaminant plume is to be cleaned up to health-protective levels in all areas where the contamination has spread.

2) Who is actually performing the cleanup work and who is administrating the cleanup?

As of September 1994, 74 Potentially Responsible Parties (PRPs) have voluntarily signed a settlement agreement with USEPA to perform the cleanup at the site. This settlement agreement is available for review in the site's information repository at the Village of Granville Library. The PRPs have hired Metcalf and Eddy (M&E) to conduct the engineering and required cleanup activities. USEPA and OEPA will oversee the activities of the PRPs and M&E.

3) Will USEPA conduct oversight of the cleanup? What does oversight mean? How will this oversight be conducted? Do the Agencies just review reports, or is there actual field presence and physical oversight of field work?

When PRPs elect to conduct the cleanup activities at a Superfund site, they must do so in accordance with the terms of the negotiated settlement agreement. Subsequently, PRPs and their agents are responsible for the adequacy of the design and the implementation of cleanup activities specified. During a PRP cleanup, the primary function of USEPA and OEPA is to ensure PRPs comply with all applicable laws, regulations, and requirements, and meet all performance standards specified in the Settlement Agreement. USEPA and OEPA have two main objectives for overseeing PRP conducted cleanups: ensure the cleanup activities are protective of public health and the environment throughout the life of the project; and ensure the work is implemented in compliance with the terms of the settlement agreement.

Both field and office oversight is conducted. Fields oversight will be conducted by the USEPA and OEPA project managers, as well as by staff at USEPA's Westlake Ohio office. If necessary, the Westlake Ohio USEPA office also has access to technical support contractors to conduct oversight. Regarding report reviews, the various offices of OEPA will be conducting reviews of the reports, including the plans for water treatment, ground-water cleanup, and monitoring. USEPA will be receiving technical report review assistance from USEPA's national center for ground-water research and treatment in Ada Oklahoma, as well as from USEPA's Cincinnati Ohio offices which specialize in wastewater treatment. Also, USEPA's Chicago IL office geologists and project managers will be assisting in the reviews.

USEPA generally uses a high level of oversight at the onset of a cleanup, and the amount of oversight effort may be increased or decreased over time depending on the capabilities of the PRPs' design and construction teams, the nature and implementation of the work, and the provisions of the settlement agreement. As the PRP demonstrates

competence in implementing the cleanup activities, the amount of oversight may be decreased. The oversight also ensures that the PRPs, not USEPA or OEPA, remain legally responsible and accountable for the success of the cleanup.

If the PRPs fail to conduct the work properly, they may be put into violation status with the settlement agreement, and may be subject to penalties. If continued problems exist, USEPA may rescind the settlement agreement and conduct the work itself using the Superfund.

4) Is November 1994 a realistic starting date for work to begin at the site (since it seems overly ambitious)?

This schedule is not overly optimistic. A draft workplan report is expected to be received by October 18, 1994 which will provide a proposed pump test plan to occur in November 1994 at the site. During this test, water will be pumped, treated if necessary, and discharged into Raccoon Creek. As discussed at the public meeting, M&E has already ordered the necessary equipment for this planned activity, and installation in November appears to be on schedule. Based in part on the results of this test, a final system to prevent the further spread of contamination from the site will be installed and operational by December 20, 1994.

5) What happens to those PRP's who did not sign the settlement agreement [i.e., Administrative Order on Consent, 'AOC']? Will they share in the cost of the cleanup? Can they sign the AOC in the future?

PRPs who have not yet signed the AOC may petition the USEPA to do so. The PRPs who have signed the AOC may pursue contribution funding from those PRPs. USEPA may also take legal action against these PRPs.

6) I recall flooding in the 1950's-1960's at the site; what impact could this flooding have on the site and future activities? Weren't there drums at the site which floated away?

The site is within the 100-year flood plain, which means that periodic infrequent flooding may be expected at the site. Past flooding probably did not significantly affect the spread of contamination at the site to the ground-water, since the ground would have been saturated during a flood and would not be likely to accept contamination from the surface. A flood may have moved contaminated soil from the surface of the Granville Solvents site; if such movement of contaminated soil occurred and this relocated contaminated soil is now a significant source of contamination to the ground-water, the ongoing studies may help locate these soils and provide for their cleanup. The plans for future activities at the site will be developed with an understanding that periodic infrequent flooding may occur. As discussed at the 9/14/94 meeting, USEPA does not have any documented information regarding the loss of drums from the site during a past flood.

7) What are considered "safe" levels of air pollution? Will children and the elderly be considered?

As discussed at the 9/14/94 meeting, theoretical 'worst-case' potential releases from cleanup activities to occur at the site were calculated to be within acceptable limits which assure protection of human health and the environment. This theoretical 'worst-case' potential release was calculated by first estimating the closest distance of people living near the site to the cleanup activities, and, using conservative exposure scenarios from USEPA guidance, developing air concentrations associated with an unacceptable cancer risk level. This calculation indicated that thirty years of continuous exposure by people living near the site to the worst possible concentrations of air contaminants which could possibly exist in the air from activities at the site would not result in an unacceptable risk to people living near the site.

It should be noted that this calculation was conservative and assumed maximum possible emissions, downwind air concentrations and risks. Unlikely, very conservative 'worst-case' events were assumed, including that: a) cleanup efforts are expected to last for thirty years (approximately ten years is expected); and b) the highest possible air concentrations of contaminants were assumed to occur continuously for thirty years (ten years operation is expected; the highest levels of ground-water were generally assumed to calculate the air concentrations and are much higher than the average ground-water concentrations; the highest air concentrations are expected to occur only initially; and the operation of the system will be adjusted to prevent unacceptable releases). These conservative assumptions may overestimate risk by multiple orders of magnitude.

The health risks to a child may be greater than for adults, since they are generally more sensitive. An inhalation unit risk for air that considers information on young age exposure increases the risk by at least 3-fold in children. However, again, since the concentrations of contaminants in the aquifer to be cleaned up are relatively low, and since the air will be monitored to ensure that no unsafe levels will be released, no unacceptable risks to any person including children are likely to occur.

As discussed at the meeting, air monitoring will also be conducted to assure that no unacceptable levels of air contaminants are released during the cleanup. Air samples will be taken and analyzed at an approved laboratory; the USEPA and OEPA will review the results of this sampling. The levels will be compared to short-term industry standards to ensure protectiveness, as well as to long-term calculated levels. If any unacceptable releases are found, cleanup activities would immediately be adjusted to prevent unacceptable releases of air contaminants.

Occupational exposure limits will be met on-site during the cleanup activities. These limits are established by OSHA (Occupational Safety and Health Administration), ACGIH (American Conference of Governmental Industrial Hygienists), and NIOSH (National Institute for Occupational Safety and Health) for the protection of healthy adult on-site workers subject to site emissions over a limited period of time. The USEPA and State of Ohio air regulations also have regulatory limits for the emissions of volatile organic contaminants (VOCs). These regulatory limits are set and based on long-term health-protective levels (which are more stringent than the short-term occupational exposure limits). VOC

emissions will be monitored, and will be reviewed by USEPA and OEPA, to assure compliance with these regulations.

Contractors will operate the cleanup system, collect the samples and monitor the actual operation. USEPA, OEPA and/or a USEPA contractor will provide government on-site presence/oversight, to assure that the cleanup is operated safely and according to environmental regulations. Performance information will be made available to the public as soon as it is developed and verified.

8) Is there any personal property at risk due to the pollution? What can USEPA do to help remedy any damages received to personal property as a result of the contamination (e.g., difficulties receiving bank loans due to possible contamination from the site)? Do the access agreements provide for restoration of property if property is damaged? How can my property be restored if the access agreement does not cover such damages?

The USEPA is not aware of any personal property at risk or personal damages caused by the flow of contamination to another's property. USEPA's current understanding is that the spread of contamination has limited itself to the site and public property, and that all homes and businesses in the Granville community use water from the Village's public water supply, which is regularly monitored and considered safe. As discussed at the public meeting, separate investigations will be conducted over the next several months and years to determine the nature, extent and sources of contamination within and to the ground-water. If these investigations find other sources of contamination than those at the site which are expected to have caused the ground-water contamination, these additional source areas will be cleaned up if necessary to assure that the surface soils are protective of human health and the environment, as well as cleaned up if necessary to protect the ground-water from further unacceptable releases of contamination.

These investigations may also find that the contamination plume may have spread further than previously known. As noted at the meeting, USEPA and OEPA agree that it is unclear whether the contaminated ground-water plume has spread to certain areas to the north, east and south of the site; these potential data gaps should be resolved after the additional investigations are completed. The contaminant plume is to be cleaned up to health-protective levels in all areas where the contamination has spread.

As discussed at the meeting, access to personal property near the site may be needed to assure that the investigation is complete. Metcalf and Eddy will develop access agreements with the property and homeowners which will indicate specific requirements for the access. Any damages associated with the access will be reimbursed to the extent allowed by law.

The Superfund law was developed to eliminate pathways of contaminant migration to the humans and the environment. The law did not authorize USEPA to assess or remedy economic or personal damages to property owners resulting from the contamination. The property owners must seek redress through the legal system for these damages.

9) Won't catch basins near the site collect surface and subsurface contaminated runoff and discharge it to Raccoon Creek?

As discussed at the public meeting, separate investigations will be conducted over the next several months and years to determine the nature, extent and sources of contamination within and to the ground-water. These investigations may find significant surface contamination which might runoff during rainstorms towards catch basins. Surface contamination which may exist at the site must be cleaned to levels which assure protection of human health and the environment. This includes Raccoon Creek. The ground-water contamination found at the site is generally deeper than the depth of the catch basins, and thus is not expected to discharge to the catch basin system. However, the future investigations are expected to determine the nature, extent and sources of contamination within and to the ground-water.

10) Can we go to the Village library on October 18th and read the work plan?

As discussed at the meeting, a "draft" workplan report is expected to be received by October 18, 1994. It is expected to provide a proposed pump test plan to begin in November 1994 at the site. This report should also contain initial studies and engineering efforts of the PRPs which assess the ground-water system, proposals for monitoring, proposed concepts and/or initial drawings/specifications for a ground-water gradient control system to be installed by 12/20/94 at the site. It should also contain the proposed concepts for a ground-water pump/treat system for the aquifer. Also, plan concepts for the soils cleanup, and for a proposal to reinstate fully the capacity of the Village of Granville's three municipal wells, are expected within this workplan. USEPA and OEPA plan to review the various aspects of the report and provide comments to the PRPs within two weeks if possible. This plan is expected to be complex and may take several weeks to finalize.

USEPA prefers not to release documents until they are considered "final", which would incorporate comments from the USEPA and OEPA and be considered acceptable to the Agencies. As noted at the meeting, the final document should be available sometime in November 1994 and will be placed in the library for public review at that time. However, Mr. Plunkett of the Village of Granville will be in contact with the Agencies regarding the status of Agency reviews and nature of the comments being generated, as well as the status of the workplan's finalization.

11) Will there be another public meeting in December to discuss the installation of the pump and treat cleanup activity? When will the next public meeting happen? Why didn't everyone get fact sheets in the Village of Granville? Why didn't everyone who lives next to the site receive one?

As discussed at the meeting, USEPA and OEPA generally prefer to meet with the public when a significant milestone has occurred at the site. While the system will be installed and operational by 12/20/94, USEPA would prefer to meet several months after the system has been in operation. This will provide more definitive information to the public regarding the performance of the system. The next public meeting is tentatively

planned for the spring of 1995, when results of the various field activities and additional final planning and reporting documents should be available.

The public will be kept informed of progress at the site through an updated fact sheet or letter which will be mailed to all people on the mailing list. All 9/14/94 public meeting attendees and homeowners within a four block radius of the site have been placed on the mailing list. Due to their large number, these homeowners will presently receive a one page overview of the site and the 9/14/94 public meeting, with notice that this response to comments and other information regarding the site is available at the information repositories (Granville Library). These homeowners will receive any future information to be sent to the mailing list (e.g., site fact sheets).

12) Was any contamination found in the westernmost monitoring well (MW#8) existing at the site? When was this well installed?

MW#8, which is located approximately 500' east of the Village's pumping well which was shut down, had found three contaminants during sampling activities which occurred in spring 1994. None of these contaminants found concentration levels above the maximum contaminant levels allowed for drinking water quality.

13) What other types of problems might be expected during the cleanup activity? Noise?

The federal Occupational Safety and Health Administration (OSHA) has set permissible noise short and long exposures which represent noise levels over which workers may not be exposed without risk. These levels will be required to be met at a minimum for cleanup activities at this site. In addition, state or local requirements for noise limits must also be met. Further, it was discussed at the meeting that once construction activities are completed, the only equipment expected to make noise would be the ground-water pumps, and that these pumps generally would not be heard several hundred feet away and would produce only low noise levels well within the OSHA levels.

14) Is there any way to completely remove the water rather than completely discharge it to the creek?

As discussed at the meeting, since the volume of water expected to be treated over the life of the cleanup is expected to be large, it would be impractical and cost-prohibitive to remove the water from the site area. Other options for disposing of the water which were discussed at the meeting include: a) putting treated water back into the aquifer through gravity drainage or reinjection (generally impractical due to the relative tightness of the surface soils and due to the site being within the 100-year floodplain); and b) putting treated water into the Village's drinking water supply (as is done in States where available drinking water sources are scarce; may be a viable option here in Granville; however, the recommended cleanup does not plan to put ground-water which has been treated for removal of VOCs back into the public drinking water system).

15) What is the depth of the aquifer and the depth of the monitoring wells?

The saturated aquifer thickness and depth is not precisely known below the site and the Village wellfield. It is at least 100 feet deep from the surface of the soil and may extent to 150 feet below the Village wellfield. The water table is generally ten feet below ground surface, and extends to over 100 feet deep based on locations of pumping wells. The monitoring wells installed for site investigations range between approximately 20 and 60 feet deep from the surface. The Village water supply wells range between 95 and 106 feet deep from the surface.

16) Are there any plans to remove the structures at Granville Solvents?

The Administrative Order on Consent, 'AOC', signed September 7, 1994, does not require the structures at the Granville Solvents site to be removed. The AOC requires that a site security plan be developed and implemented, and requires that the following be conducted: (a) preparation and/or installation of fencing surrounding the Site to prevent unauthorized entry; (b) placement of notice/warning signs on the fencing surrounding the Site; and (c) barricading/closing-off openings/points of entry to the structural buildings within the Site which contain hazardous substances or chemical pollutants or contaminants to prevent unauthorized entry to the interior of those buildings. The AOC also requires that soils at the site be cleaned up to assure protectiveness of human health and the environment. If these soils are found not to be protective of human health or the environment, and are located in areas under the building, the building may need to be removed to access the soils (it should be noted that this situation is not expected to occur).

17) What will happen to the contaminated soil at the site? Will a landfill be installed at the site to take the contaminated soils? If so, how would it be protected since it is a floodplain area?

As discussed at the meeting, it is generally most cost-effective and environmentally safe to treat and dispose of wastes on the site where the wastes were deposited or generated. However, since the volume of contaminated soils is expected to be relatively low for this site, it may be more cost-effective to arrange for the disposal of the contaminated soils at an acceptable off-site landfill facility. Further, an on-site landfill may not be a practical or cost-effective option for disposal of the soils, due in part to the relatively low volumes of soil expected and the limited property owned by the site. Also, the site location may not be compatible with various stringent regulatory requirements for the design, construction, and long term monitoring of an on-site landfill; these incompatibilities may include the potential lack of sufficient buffer space from homes, roadways and waterways, the relatively high ground-water at the site, and the site being within the 100-year floodplain.

As discussed at the meeting, separate studies are currently ongoing to determine the best fate of contaminated soils at the site. These soils may have to be removed, or

possibly may be left in place if they will remain protective of human health and the environment. A "draft" workplan report is expected to be received by October 18, 1994 which is expected to provide a plan concepts for the soils cleanup. USEPA and OEPA plan to review the various aspects of the report and provide comments to the PRPs within two weeks if possible. This plan is expected to be complex and may take several weeks to finalize. The final document should be available sometime in November 1994 and will be placed in the library for public review. It is likely that this concept plan will recommend that separate studies will be required to assess the extent of soil contamination, degree to which it may present a risk to humans or the environment, and potential cleanup options for contaminated soils. A schedule for the conduct of these studies will be expected within the workplan.

18) Was there a Village drinking water well next to the site through the 1960's? Could this well have been contaminated and thus caused contamination of the Village drinking water?

According to Mr. Plunkett, the Granville Village Manager, the Village drinking water well which was located near the site was removed in the late 1960's, which was prior to the bulk of activity at the site. Therefore, the risks of contamination to the Village's water supply prior to the late 1960's appears to be minimal.

19) Why was the air sparging ground-water cleanup option (which was proposed earlier in 1994) rejected? [note: "air sparging" was a proposed cleanup option which involved injection of forced air into the ground-water for the purpose of removing volatile organic contamination (VOC) from the ground-water through transferral of the VOCs from the ground-water to the air and collecting the air at the ground surface].

As discussed at the meeting, there were three general reasons why "air sparging" was not selected for the cleanup of the ground-water: a) the mix of contaminants present and the permeability of the aquifer limited the potential removal of all ground-water contaminants from the ground-water; b) a proposal to conduct both ground-water pump and treat and air sparging technologies at the site did not appear to be cost-effective; and c) field studies conducted in the spring of 1994 indicated that air sparging would not work at the site.

20) What is the responsibility of the owner of Granville Solvents?

The owner of the real property is Granville Solvents Inc., a now defunct corporation. The owner of Granville Solvents Inc. is John Reeb. They have been informed that they are Potentially Responsible Parties (PRPs) at the site. They have not signed the Administrative Order on Consent, 'AOC', which is the agreement through which the PRPs will conduct the cleanup at the site. PRPs who have not yet signed the AOC may petition the USEPA to do so. The PRPs who have signed the AOC may pursue contribution funding from those PRPs. USEPA may also take legal action against these PRPs.